

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A vehicle guidance apparatus for guiding a land based agricultural vehicle over a paddock along a number of paths, the paths being offset from each other by a predetermined distance, said vehicle including steering means, said apparatus including:

a satellite based global positioning system receiver for periodically receiving vehicle position data and a radio modem operatively receiving positional correction factor data from a base station to correct said periodically received vehicle position data;

inertial relative position determining means mounted to said vehicle, for generating relative positional data ~~signals applicable to~~ along a current path during time periods between receipt of respective said vehicle position data, said relative position determining means comprising a number of accelerometers ~~and local speed data means~~;

data entry means facilitating entry of an initial path by an operator and a desired offset distance between paths;

processing means coupled to the global positioning system receiver, radio modem and relative position determining means, operatively arranged to generate said paths based on said initial path, said processing means generating a continuous guidance signal indicative of errors in the position of the vehicle relative to one of said paths, with said position being determined by combining the corrected vehicle position data and the relative position data ~~signals~~; and

controllable steering means coupled to the processing means and selected to guide the vehicle towards said paths thereby reducing said errors.

2. (Original) An apparatus according to claim 1, wherein said microprocessor is further operatively arranged to provide an indication of the direction of said vehicle relative to a path closest to said vehicle.

3. (Original) An apparatus according to claim 1, wherein said paths are straight parallel lines.

4. (Original) An apparatus according to claim 1, wherein said paths are concentric polygons.

5. (Canceled)

6. (Previously Presented) An apparatus according to claim 1, wherein said controllable steering means includes a human interface for converting said guidance signal to a format indicating said error to a human operator of said vehicle.

Claims 7-9 (Canceled)

10. (Previously Presented) An apparatus according to claim 1, wherein said controllable steering means includes at least one solenoid mechanically coupled to said steering means, said solenoid responsive to said guidance signal.

11. (Original) An apparatus according to claim 10, further including steerage feedback sensors operative to generate steerage feedback signals indicative of orientation of said steerable wheels or tracks, said microprocessor being responsive to said steerage feedback signals.

12. (Original) An apparatus according to claim 11, wherein said steerage feedback sensors comprise Hall effect devices.